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## The Eastern Iowa DX Bulletin

Number 231, July 19, 2024

**Craig Fastenow, KØCF, Editor**

This bulletin is a compilation of **currently active** DX operations (or those that will become active within the current week) from recent issues of the three DX bulletins listed below and other sources. Credit for the source is given at the end of each article.

Articles are ordered by the entity's callsign prefix from the *ARRL DXCC Entities List*. Callsigns used are in **bold** with dates of operation highlighted in **red**. Clickable links are provided for QSL and other information wherever possible. Note that articles may be edited for grammar, language, style and accuracy and will remain in *The Bulletin* while active; articles that are announcements of ongoing operations, or that have no specified end date, will be removed after three weeks.

Also included is a [Propagation](#) section, updated daily; and a [Contest Calendar](#) of upcoming popular contests.

DX News items are courtesy of:

The ARRL DX Bulletin

The bulletin is available at <http://www.arrl.org>

425 DX News, A.R.I. DX Bulletin (425DXN)

Edited by Mauro Pregliasco, I1JQJ & Valeria Pregliasco, IK1ADH

425 DX News Home Page: <https://www.425dxn.org/>

425 DX News Google Group: <https://groups.google.com/g/425eng>

DX Newsletter (DXNL)

Edited by Andreas Salder, DK5ON

A weekly service of DARC Committee "DX", <http://www.darcdxhf.de>

Ohio-Penn DX Bulletin (OPDX)

Edited by Tedd Mirgliotta, KB8NW. Although OPDX is no longer published as a weekly bulletin, Tedd still sends DX news emails.

We will occasionally publish some of them.

Propagation data is from:

National Oceanic and Atmospheric Administration's

[Space Weather Prediction Center](#)

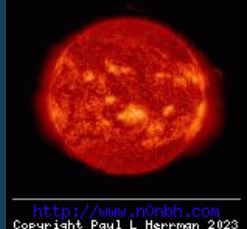
Dr. Tony Phillips' [SpaceWeather.com](http://SpaceWeather.com), used by permission

Contest data courtesy of the [WA7BNM Contest Calendar](#)



### Solar-Terrestrial Data

20 Jul 2024 1710 GMT  
 SFI: 202 SN: 197  
 A-Index: 5  
 K-Index: 1  
 X-Ray: C2.0  
 304Å: 177.4 @ SEM  
 Ptn Flx: 46  
 Elc Flx: 1360  
 Aurora: 1/n=1.99  
 Mag (Bz): 1.6  
 Solar Wind: 358.5  
 Geomag Field VR QUIET  
 Sig Noise Lvl S0-S1  
 Current Solar Image



<http://www.nonbh.com>  
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## DX News

**9H, MALTA.** Bill, LA8FTA will be QRV as **9H/LA8FTA** from Gozo Island (EU-023) from **July 23rd to August 1st**. Activity will be on the HF bands using SSB and FT8. QSL via LoTW.

-[ARRL DX Bulletin # 26 July 18, 2024] (0719-0802)

**BY, CHINA.** Team **BI4SSB** will be active from Cheniu Shan Island (AS-135) on **July 25th-28th**, IOTA Contest (July 27th-28th) included. Before the contest they might be active on 6 meters (WWL OM94vx)

and via IO-117 (Greencube). QSL via [BA4TB](#).  
 -[425DXN # 1733 July 20, 2024] (0719-0802)

**CN, MOROCCO.** Taking part in the annual Throne Day's celebrations, members of the Association Royale des Radioamateurs du Maroc (ARRAM) will be using the special **prefix 5C25** from **July 25th to August 5th**: e.g. CN8NOA will be using 5C25NOA. The national society (CN8MC) will be running the Silver Jubilee special event station 5C25FT. Throne Day is a public holiday in Morocco that commemorates the enthronement of the incumbent monarch. Since 1999, it has been celebrated on July 30th.

-[425DXN # 1733 July 20, 2024] (0719-0809)

**CT, PORTUGAL.** Special callsign **CS5POTA** will be activated by **CT1END/p**, **CT2IFE/p**, **CS7AWH/p**, **CS7AWL/p** and **CS7BEK/p**, all of whom will also be using their own calls, from Fort Sao Joao Baptista on Berlenga Grande Island (EU-040) on **July 19th and 20th**. They will operate QRP on 80-10 and 2 meters, SSB, FM and digital modes. QSL CS5POTA via [CT1REP](#), others via home calls.

-[425DXN # 1725 May 25, 2024] (0719-0726)

**CT, PORTUGAL.** Special event station **CR6B** will be active on **July 15th-21st** for the 42nd International Motorcycle Rally in Faro, Portugal. Expect activity on 160-6 meters SSB, CW and digital modes. QSL via [CT1EHX](#).

-[425DXN # 1732 July 13, 2024] (0712-0726)

**DL, GERMANY.** Special callsign **DLØSOP** will be active on **July 1st-31st** for the 66th edition of the Sea of Peace Award (see <https://dl0sop.darc.de/> for full details). QSL via [ClubLog's QQRS](#), LoTW, eQSL, or direct to [DL4SVA](#).

-[425DXN # 1730 June 29, 2024] (0628-0802)

**DU, PHILIPPINES.** Christian, F4EBK is QRV as **DU3/F4EBK** from Luzon Island, IOTA OC-042, **until January 2025**. Activity is on 20, 15 and 10 meters typically around 0900 and then after 2100z. QSL via [F4EUQ](#).

-[ARRL DX Bulletin # 25 July 11, 2024] (0712-0802)

**DXCC TOP TWENTY.** Here are the top 20 entities on ClubLog's "DXCC Most Wanted" list as of July 19, 2024:

1. P5	DPRK (North Korea)	11. ZS8	Prince Edward & Marion Islands
2. BS7H	Scarborough Reef	12. KH4	Midway Island
3. CEØX	San Felix Islands	13. VKØM	Macquarie Island
4. BV9P	Pratas Island	14. PYØS	Saint Peter And Paul Rocks
5. KH7K	Kure Island	15. KP5	Desecheo Island
6. KH3	Johnston Island	16. VPØS	South Sandwich Islands
7. 3Y/P	Peter 1 Island	17. KH5	Palmyra & Jarvis Islands
8. FT5/X	Kerguelen Island	18. ZL9	New Zealand Subantarctic Islands
9. YVØ	Aves Island	19. FK/C	Chesterfield Islands
10. 3Y/B	Bouvet Island	20. VKØH	Heard Island

For the complete list, see <https://clublog.org/mostwanted.php>

-[KØCF July 19, 2024] (0719-0809)

**E5/S, SOUTH COOK IS.** Steve, ZL2KE will be active as **E51KEE** from Rarotonga (OC-013) on **July 20th - August 2nd** (including an entry in the IOTA Contest July 27th-28th), and from Aitutaki (OC-083) on **August 3rd-6th**. He will operate CW and SSB. QSOs will be uploaded to LoTW, QRZ Logbook, eQSL, ClubLog.

Steve, ZL4CZ will be active as **E51CZZ** from Rarotonga on **July 27th-31st** and from Aitutaki on **August 1st-6th**. He will operate SSB.

The two Steves will be staying at the same beach house on Rarotonga, and at adjacent bungalows on Aitutaki. They will be QRV mainly on 20, 15 and 10 meters (also possible are 40, 30, 17 and 12 meters, 160 and 80m "depending on QRN and interest from DXers"). QSL both E51KEE and E51CZZ direct to [IK2DUW](#).

-[425DXN # 1731 July 6, 2024] (0719-0809)

**F, FRANCE.** Special callsign **TM111TDF** is a French special callsign to be activated for this year's 111th edition of the Tour de France. Look for activity on **June 29th, July 1st-2nd, 6th, 9th-11th, 13th-**

**14th and 17th-21st.** QSL via [F8GGZ](#).

-[425DXN # 1729 June 22, 2024] (0628-0726)

**F, FRANCE.** During the Paris 2024 Olympic Torch Relay and the actual Olympic Games, look for **TM67OG** to be active for fifteen days from **June 25th to July 27th**, and **TM67JO** to be active for another fifteen days from **July 26th until August 11th**. The operators will be F1LFL (SSB), F5PZT (FT8 and FT4) and F5TFW (CW). QSL via [F1LFL](#).

-[425DXN # 1728 June 15, 2024] (0621-0816)

**F, FRANCE.** Special event station **TM85JO** operates around the Olympic Torch stages from **May 8th to 12th**, **June 8th to 9th**, **June 21st to 23rd**, **July 12th to 14th**, and on **July 26th**. QSL via bureau.

-[DXNL # 2405 May 8, 2024] (0510-0726)

**FG, GUADELOUPE.** George, OK2KG is QRV as **FG/OK2KG** until **July 23rd**. Activity is holiday style on 40 to 10 meters. QSL to [OK2KG](#).

-[ARRL DX Bulletin # 26 July 18, 2024] (0719-0726)

**FM, MARTINIQUE.** Stefano, IW2MJQ, will be active as **IW2MJQ/mm** and as **J87/IW2MJQ** and **FM/IW2MJQ** from various BOTA (Beach on The Air) and POTA (Parks on The Air) locations during **July**. QSL direct via [IK2WAD](#).

-[DXNL # 2413 July 3, 2024] (0705-0802)

**FS, SAINT MARTIN.** Eric, GM5RDX will be active as **FS/GM5RDX** from **July 15th to 30th**. QSL via LoTW, eQSL, [ClubLog's OQRS](#), or the Bureau.

-[DXNL # 2414 July 10, 2024] (0712-0802)

**G, ENGLAND.** Joining Guglielmo Marconi's 150th anniversary celebrations, the Cornish Radio Amateur Club (GX4CRC) will be active as **GB15ØGM** from **April 27th until July 27th**. This activity participates in the "Marconi 150 Award", organized by the Associazione Radioamatori Italiani (ARI) and the Coordinamento Stazioni Marconiane Italiane (CSMI) under the patronage of the Guglielmo Marconi Foundation. See IR2GMCL below. QSL via eQSL.

-[425DXN # 1720 April 20, 2024] (0426-0726)

**HR, HONDURAS.** Alex, K6VHF will be QRV as **K6VHF/HR9** from Roatan Island, IOTA NA-057, from **July 13th to 22nd**. Activity will be on the HF bands and 6 meters using mainly digital modes. QSL via [K6VHF](#), LoTW, eQSL.

-[ARRL DX Bulletin # 25 July 11, 2024] (0712-0726)

**HS, THAILAND.** Special callsign **HS72KING** will be used by the Radio Amateur Society of Thailand (RAST) to celebrate the 72nd birthday of His Majesty King Maha Vajiralongkorn (HS1ØA) from **July 1st to 29th**. "By endorsing and participating in this special event, His Majesty continues to inspire and encourage the growth and development of amateur radio in the country". QSL via LoTW and [ClubLog's OQRS](#).

-[425DXN # 1731 July 6, 2024] (0705-0802)

**I, ITALY.** Giorgio, IU2EBO will operate QRP as **IA5/IU2EBO** from Isola d'Elba (EU-028) on **July 10th-27th**, including a 12-hour effort during the IOTA Contest. QSL via the bureau and eQSL.

-[425DXN # 1731 July 6, 2024] (0705-0726)

**I, ITALY.** Celebrating Pesaro Capitale Italiana della Cultura (Italian Capital of Culture) 2024, members of ARI Pesaro and ARI Fano will be active as **I16CIC** from **June 1st to August 29th**. QSL via [IQ6PS](#).

-[425DXN # 1725 May 25, 2024] (0531-0830)

**I, ITALY.** Commemorating the 150th anniversary of the birth of Guglielmo Marconi, members of ARI's Board of Directors will be active as **IR2GMCL** from **April 28th to July 27th** during the "Marconi 150 Award". See <https://www.qrz.com/db/IR2GMCL> for the rules. Paper QSL cards will not be provided; electronic QSLs may be downloaded from the HamAward platform.

-[425DXN # 1720 April 20, 2024] (0426-0726)

**ISØ, SARDINIA.** Ennio, IW1RBI will be active holiday style as **ISØ/IW1RBI** from Arbus, Sardinia (EU-024) on **July 18th-25th**. He will operate mainly SSB on 80-6 meters. QSL via [IW1RBI](#).

-[425DXN # 1732 July 13, 2024] (0712-0726)

**J6, ST. LUCIA.** Matts, SMØFPR, is currently active holiday-style as **J6/SMØFPR**, mainly on 20, 17, and 15m (CW) during the evening hours. The duration of his stay is unknown; he may also go on to visit Martinique (FM) and St. Vincent / Grenadines (J8). QSL via [SMØFPR](#).

-[DXNL # 2415 July 17, 2024] (0719-0809)

**J8, ST. VINCENT.** Stefano, IW2MJQ, will be active as **IW2MJQ/mm** and as **J87/IW2MJQ** and **FM/IW2MJQ** from various BOTA (Beach on The Air) and POTA (Parks on The Air) locations **during July**. QSL direct via [IK2WAD](#).

-[DXNL # 2413 July 3, 2024] (0705-0802)

**JA, JAPAN.** Haru, JA1XGI will be QRV as **JA1XGI/6** from Minami Daito Island (AS-047) from **July 21st to 23rd**. Activity will be on 40, 30, 20, 15, and 10 meters using CW and FT8. This includes being active on Satellite IO-117. QSL via ClubLog.

-[ARRL DX Bulletin # 26 July 18, 2024] (0719-0726)

**JA, JAPAN.** Kenji, JA4GXS, plans to activate the uninhabited island Uji (AS-067) on July 20th (0400z-2200z) as **JA4GXS/6** on 40, 30, 20, and 6m on CW, SSB, and FT4/8. QSL via [JA4GXS](#).

-[DXNL # 2415 July 17, 2024] (0719-0726)

**JA, JAPAN.** Take, JI3DST will be active as **JI3DST/1** from Shikine Island (AS-008) on **July 25th-29th**, including an entry in the IOTA Contest (July 27th-28th). Other callsigns to be used outside the contest are **JJ5RBH/1**, **JR8YLY/1** and **JS6RRR/1** on CW and SSB, as well as **JJ5RBH/p**, **JR8YLY/p** and **JS6RRR/p** on FT8. QSOs will be made available for ClubLog and LoTW Matching on the IOTA website.

-[425DXN # 1731 July 6, 2024] (0719-0802)

**K, UNITED STATES.** John, WB8YJF will be active again as **WB8YJF/4** from Ocracoke Island (NA-067) on **July 13th-22nd**. Usually he operates CW, RTTY, FT8/FT4 and SSB. QSL via [WB8YJF](#).

-[425DXN # 1731 July 6, 2024] (0712-0726)

**KH8, AMERICAN SAMOA.** A group of operators are QRV as **K8R** from Tutuila Island, IOTA OC-045, **until July 25th**. Activity is on all HF bands using CW, SSB, and FT8. This includes an entry in the IARU HF World Championship (July 13th-14th). QSL via [HA7RY](#).

-[ARRL DX Bulletin # 25 July 11, 2024] (0712-0726)

**KH9, WAKE I.** Tom, NL7RR is QRV as **NL7RR/KH9** for about two weeks. He is active in his spare time on 20 meters using SSB between 0400 and 0800z. QSL to [NL7RR](#).

-[ARRL DX Bulletin # 25 July 11, 2024] (0712-0726)

**LA, NORWAY.** Carlos, LA9PJA expects to be active as **LA9PJA/p** from Hadseloya, Vesteralen Islands (EU-033) from **July 15th to 26th**. QSL cards will not be available, but QSOs will be uploaded to LoTW and ClubLog for IOTA matching. QSL via eQSL.

-[425DXN # 1731 July 6, 2024] (0712-0726)

**OE, AUSTRIA.** Special event stations **OE2XXM** and **OE5XXM** are QRV **during July** around the 38th International Amateur Radio meeting in Gosau. QSL via bureau.

-[ARRL DX Bulletin # 25 July 11, 2024] (0712-0802)

**OE, AUSTRIA.** Celebrating the 60th anniversary of the Rhein Ruhr DX Association (<https://rrdxa.org/>), Tom, OE4EIE is active as **OE4RRDXA** from **July 1st to September 30th**. QSOs will be uploaded to LoTW and ClubLog; paper QSL cards will not be available.

-[425DXN # 1731 July 6, 2024] (0705-0927)

**OE, AUSTRIA.** Special callsign **OE7ØVIE** marks the 70th anniversary of Vienna International Airport (IATA code VIE) from **June 21st to September 30th**. QSL via [ClubLog's OQRS](#) (preferred), LoTW in due course, or via [OE6VIE](#).

-[425DXN # 1729 June 22, 2024] (0621-0927)



**OX, GREENLAND.** Matt, KØMOS, and his wife kayak around Southern Greenland from **July 20th until August 4th** and will be paying visits to Greenland's coastal islands in the NA-220 and NA-018 groups. QRV during rest periods as **OX/KØMOS/p** on 20, 15, and 10m (SSB) with 10W. QSL direct via [KØMOS](#), LoTW.

-[DXNL # 2415 July 17, 2024] (0719-0809)

**OZ, DENMARK.** The following special event callsigns celebrate the 60th anniversary of IOTA **until the end of August**:

**OZ6ØIOTA** (mainland),  
**5P6ØIOTA/Ø** (EU-030),  
**5P6ØIOTA/1** (EU-171),  
**5P6ØIOTA/2** (EU-172),  
**5P6ØIOTA/5** (EU-125),  
**5P6ØIOTA/8** (EU-088),  
**5P6ØIOTA/9** (EU-029).

For a schedule of activities see: <https://www.supersaas.dk/schedule/EDR/OZ60IOTA>. A number of certificates will be available, see <https://www.qrz.com/db/OZ60IOTA> for complete information. QSL via [ClubLog's OQRS](#) (preferred), LoTW, or via [OZ1ACB](#).

-[DXNL # 2413 July 3, 2024] (0705-0830)

**PJ7, SINT MAARTEN.** Eric, GM5RDX will be active as **PJ7/GM5RDX** from **July 15th to 30th**. QSL via LoTW, eQSL, [ClubLog's OQRS](#), or the Bureau.

-[DXNL # 2414 July 10, 2024] (0712-0802)

**S2, BANGLADESH.** Abdullah, **S21AF** has been active on 17 meters using FT8 around 1930z. QSL via [I8KHC](#).

-[ARRL DX Bulletin # 25 July 11, 2024] (0712-0802)

**SM, SWEDEN.** OZØJ, OZ2ELA, OZ3ACB and OZ9U will be active as **SM/OV2E** from Senoren Island (EU-138) on **July 25th-29th**. They will operate CW, SSB and FT8 (maybe RTTY) on the HF bands and possibly 6 meters and will participate in the IOTA Contest (July 27th-28th). QSL via [ClubLog's OQRS](#) (preferred), eQSL, LoTW, or via [OZØJ](#).

-[425DXN # 1733 July 20, 2024] (0719-0802)

**SP, POLAND.** Special callsign **SN91LOT** will be active on **July 1st-31st** to commemorate the 91st anniversary of the ill-fated flight of Lithuanian pilots Steponas Darius and Stasys Girenas. On July 15, 1933, they attempted a nonstop flight from New York City to Kaunas in a small airplane named "Lituanica". After crossing the Atlantic Ocean, they crashed on July 17 when they were only 650km short of their final destination. QSL via [SP1PMY](#).

-[425DXN # 1730 June 29, 2024] (0628-0802)

**UA, EUROPEAN RUSSIA.** Mike, R1MJ and Yaroslav, R1BET will be QRV as **R11K** from Bolshoy Zhuzhmyu Island (EU-147) from **July 20th to 27th**. Activity will be on the HF bands using CW, SSB, and FT8. QSOs will be uploaded to LoTW and ClubLog. QSL via [R1BET](#).

-[ARRL DX Bulletin # 26 July 18, 2024] (0719-0726)

**UA9, ASIATIC RUSSIA.** Team **R18KK** (R1IB, R1II, RL1I and RG5G) will gather in Vorkuta on **July 14th-16th**, then will leave for Yarynskaya, on the coast of Baydaratskaya Bay. Depending on local conditions, plans are to be active from the Marresal'skiye Koshki Islands (AS-089, RR-06-02). If possible, they will also be QRV from the islands of Khaleyngo (RR-06-62) and Khalengo (RR-06-63). After that, if there is time, they will be QRV as R11PP from the Karskaya Bay Islands (RR-06-61). QSLs via [R1II](#).

-[425DXN # 1732 July 13, 2024] (0712-0802)

**V4, ST. KITTS & NEVIS.** Rod, K8RR is QRV as **V4/K8RR** on St. Kitts (NA-104) **until July 20th**. Activity is holiday style on 80, 40, 30, and 20 meters. QSL to [K8RR](#).

-[ARRL DX Bulletin # 26 July 18, 2024] (0719-0726)

**V4, ST. KITTS & NEVIS.** Eric, GM5RDX will be active as **V4/GM5RDX** from **July 15th to 30th**. QSL via LoTW, eQSL, [ClubLog's OQRS](#), or the Bureau.

-[DXNL # 2414 July 10, 2024] (0712-0802)

**VE, CANADA.** Pierre, VE3KTB will be QRV from Eureka Amateur Radio Club station **VYØERC** located on Ellesmere Island (NA-008) from **July 21st to August 7th** while on work assignment. Activity will be in his spare on 20, 15, and 10 meters, and possibly 17 and 12 meters, using CW, SSB, and FT8. QSL via [MØOXO's QQRS](#).

-[ARRL DX Bulletin # 26 July 18, 2024] (0719-0809)

**VK, AUSTRALIA.** Tom, W1EAT, will be active holiday style as **W1EAT/VK4** from Hamilton Island (OC-160) from **July 25th to August 5th**. He will operate QRP on 20 meters only. QSL via LoTW, or direct to [W1EAT](#).

-[425DXN # 1733 July 20, 2024] (0719-0809)

**VK9L, LORD HOWE I.** Jeff, W7BRS will be active as **VK2/W7BRS** from Lord Howe Island (OC-004) from **July 20th to August 1st**, including an entry in the IOTA Contest (July 27th-28th). He will operate CW, SSB and FT8 (F/H) on 40-10 meters. See <https://howeania2024.org/> for more information. (According to the Australian Communications and Media Authority's updated "Amateur Radio Call Sign Policy", VK9 prefixed callsigns can be used only by operators located in an Australian External Territory other than the Antarctic. Lord Howe Island is part of New South Wales, hence the use of VK2/W7BRS.) QSL via [MØURX's QQRS](#).

-[425DXN # 1727 June 8, 2024] (0719-0802)

**XU, CAMBODIA.** Tom, DL7BO is QRV as **XU7GNY** until **July 21st**. Activity is on 160 to 6 meters using CW, SSB, and FT8. QSL via [DL4WK](#).

-[ARRL DX Bulletin # 24 June 27, 2024] (0628-0726)

**XW, LAOS.** Vincent, F4BKV, plans to return to Laos and activate locator squares via QO-100 as **XW4KV** according to the following schedule:

**July 10-14**, OK17

**July 15-16**, OL10

**July 18**, OK09 (briefly, during morning hours)

**July 20-21**, OK33

**July 22-24**, OK24.

QSL via [ClubLog's QQRS](#) or via [F4BKV](#).

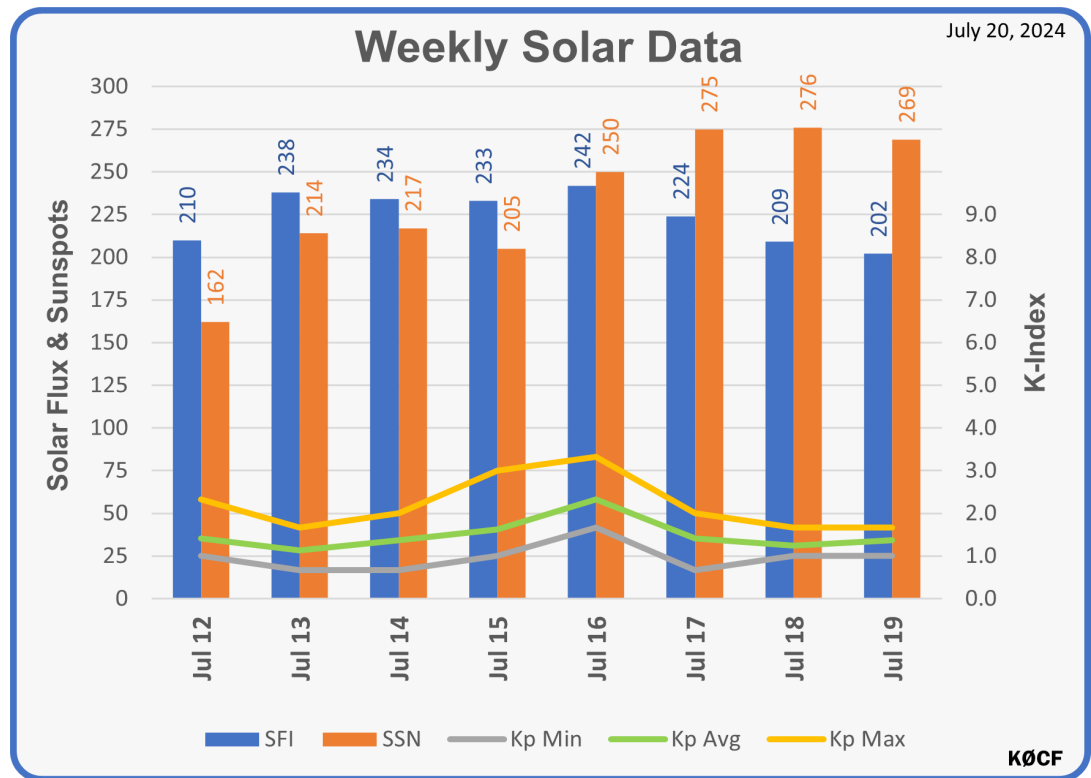
-[DXNL # 2414 July 10, 2024] (0712-0726)

**YB, INDONESIA.** Benny, YB1RET is QRV as **YB1RET/p** from the Riau Islands (OC-075) until **July 20th**. Activity is on Satellite QO-100 using SSB. QSL via LoTW.

-[ARRL DX Bulletin # 26 July 18, 2024] (0719-0726)

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## Propagation (Updated daily)



The Weekly Solar Data chart plots Solar Flux Index (SFI), Sunspot number (SSN) and Planetary K-Index (Kp) for the past 8 days. With 8 Planetary K-index readings each day, only the minimum, average and maximum K-index values are plotted. **Note:** You may click [here](#) or on the chart above to see the same data for the past month.

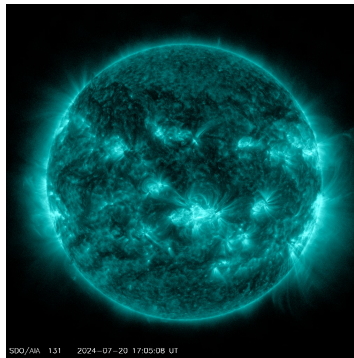
The Daily Solar Flux Index, Sunspot number, Planetary K-index, Solar Flux predictions and Solar Flare data used in this bulletin have been collected by KØCF from the U.S. Department of Commerce's NOAA Space Weather Prediction Center.

The propagation graphs above are the creations of KØCF and are unique in space weather reporting.

*Please Note: The graphs are high resolution .PNG files which you may view in greater detail using your browser's "zoom" feature. Alternatively, right click on the graph and select "Open Image in New Tab" to enlarge it, or "Save Image As..." to save it to your computer for further analysis.*

NASA's current view of the Sun at a wave-length of 131 Angstroms. This wavelength shows incredible solar detail.

Click [here](#) or on the image to view as a full screen 48-hour video loop. It is fascinating!



## Propagation Summary

For the 8 day period from Friday, July 12th through yesterday, July 19th.

The average solar flux was 226, up 38 points from the previous week, with a weekly high of 242 on Tuesday, July 16th, followed by a low of 202 on July 19th. The solar flux reading of 242 is a new high for Solar Cycle 25.

The average sunspot count was 244, up 97 from last week, peaking at 276 on Thursday, July 18th after

a weekly low of 162 on July 12th.

The Planetary K-index weekly average was 2.2 with a maximum of 3.3 on Tuesday, July 16th, resulting in generally quiet geomagnetic conditions. Yesterday's K-index maximum was 1.7, producing generally quiet geomagnetic conditions.

Solar flare activity since July 13th has been extremely high with 26 major flares, the largest of which was a major X 1.9 event on Tuesday, July 16th.

Propagation Data

Major solar flares, Saturday, July 13th through 1303 UTC, July 20th.

#	Date	UTC	Mag.
1	Jul 20	0720	M 1.8
2	Jul 19	2251	M 1.0
3	Jul 19	1806	M 2.0
4	Jul 19	0823	M 3.2
5	Jul 18	1014	M 2.2
6	Jul 17	1958	M 2.0
7	Jul 17	0945	M 1.2
8	Jul 17	0639	M 5.0
9	Jul 16	2206	M 1.9
10	Jul 16	2124	M 1.6
11	Jul 16	1326	X 1.9
12	Jul 16	0737	M 3.6
13	Jul 16	0301	M 1.4
14	Jul 15	0937	M 2.7
15	Jul 15	0345	M 1.2
16	Jul 14	2057	M 1.0
17	Jul 14	1020	M 1.0
18	Jul 14	0413	M 3.0
19	Jul 14	0234	X 1.2
20	Jul 14	0116	M 1.7
21	Jul 13	2301	M 5.0
22	Jul 13	1930	M 1.0
23	Jul 13	1544	M 1.9
24	Jul 13	1530	M 1.8
25	Jul 13	1242	M 5.3
26	Jul 13	0318	M 1.4

(NOAA's graph of recent flare activity: [GOES-X-Ray-Flux](#))

From the NOAA Space Weather Prediction Center, here are the probabilities of major solar flares and the predicted 10.7 cm Solar Flux for the next 3 days. NOAA updates this information daily.

Date	M-Flares	X-Flares	Solar Flux
Jul 20	55%	10%	200



Jul 21	55%	10%	190
Jul 22	55%	10%	185

Looking farther ahead, here is the NOAA Space Weather Prediction Center forecast of 10.7 cm radio flux and maximum Planetary K-index (Kp) for the next 12 days. This data is updated by NOAA every Monday (last updated on July 15, 2024).

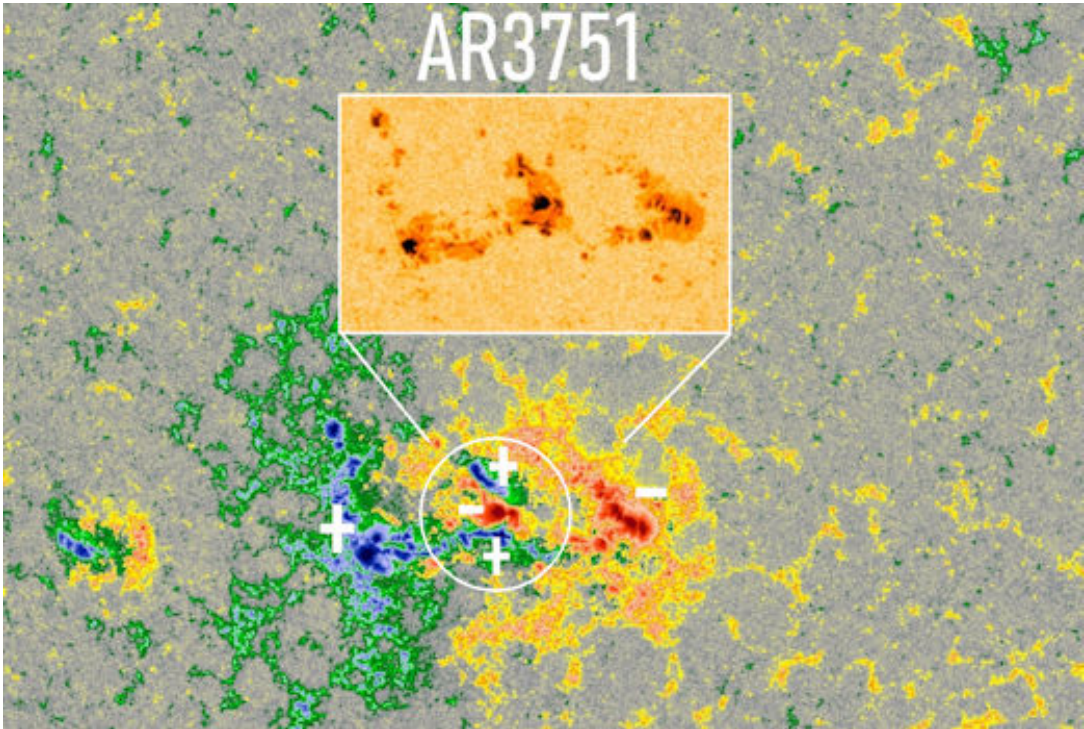
Date	Flux	Kp
Jul 20	200	3
Jul 21	200	2
Jul 22	195	2
Jul 23	190	2

Date	Flux	Kp
Jul 24	185	2
Jul 25	180	2
Jul 26	180	2
Jul 27	180	2

Date	Flux	Kp
Jul 28	175	2
Jul 29	170	2
Jul 30	170	2
Jul 31	170	2

**A Potentially Dangerous Sunspot**

It hasn't exploded ... yet. Growing sunspot AR3751 has a mixed-polarity magnetic field that harbors energy for X-class solar flares. Note the plus-minus-plus sandwich at the heart of the sunspot in this magnetic map from NASA's Solar Dynamics Observatory:



It's a bit like an Oreo cookie, if Oreo cookies could explode like a billion atomic bombs. When opposite magnetic polarities are pressed together in close proximity, the 'squeeze' can lead to [magnetic reconnection](#), the power source of solar flares. AR3751's stack of pluses and minuses is directly facing Earth, so any flares today will be geo-effective.

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**Geomagnetic Storm Watch (G1)**

Two and possibly [three faint CMEs](#) are heading for Earth following a series of eruptions from sunspots AR3743, AR3753, and AR3744 on July 16-17. Their collective impact on July 20-21 could cause a minor [G1](#)-class geomagnetic storm.

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**Highs for Cycle 25**

- Solar Flux: 242 on July 16, 2024.
- Sunspots: 283 on April 21, 2024.

Popular Propagation web sites

<https://prop.kc2g.com/> (Excellent Maximum Usable Frequency map)  
NOAA <https://www.swpc.noaa.gov/>  
<https://www.spaceweather.com/>  
<https://www.solarham.com/>  
<https://dx.gsl.net/propagation/>

A Propagation Tutorial

The solar X-ray flux tracks solar activity and solar flares. Solar flux, which can vary from as low as 50 to as high as 300, influences the level of ionization in the F2 region of the ionosphere, providing a very good prediction of HF DX conditions. The higher the solar flux, the better conditions will be for the higher HF frequencies and even 6 meters. However, the levels need to be maintained for some days to allow ionization in the F2 layer to build up. A solar flux of 150 results in good HF band conditions, while levels of 200 and up can provide great conditions.

Large X-ray flares on the sun can increase the ionization of the D layer of the ionosphere (a lower layer) on the sunlit side of the Earth, greatly attenuating or blocking HF radio transmissions for up to a half hour. Solar flares often produce Coronal Mass Ejections (CMEs) which, if Earth directed, can lead to geomagnetic storms. Some large flares are also accompanied by strong radio bursts that may interfere with other radio frequencies and cause problems for satellite communication and radio navigation (GPS).

The Planetary K-index is a measure of the magnitude of geomagnetic storms and is an excellent indicator of disturbances in the Earth's magnetic field. A level of 1 or 2 represents quiet geomagnetic conditions; a reading of 3 or 4 may cause some propagation deterioration; 5 and 6 are minor to moderate geomagnetic storms; and 7 to 9 are strong, severe, and extreme storm conditions. Strong geomagnetic storms can trigger Auroral displays and cause HF radio blackouts. Higher geomagnetic activity also has the adverse effect of lowering maximum usable frequencies, much like lower solar flux does.

For best conditions, the solar flux should be above 150 for a few days with the K index below 2. When these conditions are met, some good DX is likely!  
-[Compiled from information on NOAA.gov and other sources]

Contest Calendar

Weekly Contests

Contest	Start UTC		End	Web Site
K1USN Slow Speed Test	Monday	0000Z	0100Z	<a href="#">Rules</a>
ICWC Medium Speed Test	Monday	1300Z	1400Z	<a href="#">Rules</a>
	Monday	1900Z	2000Z	
	Tuesday	0300Z	0400Z	
CWops Test (CWT)	Wednesday	1300Z	1400Z	<a href="#">Rules</a>
	Wednesday	1900Z	2000Z	
	Thursday	0300Z	0400Z	
	Thursday	0700Z	0800Z	
Weekly RTTY Test	Friday	0145Z	0215Z	<a href="#">Rules</a>
NCCC CW Sprint (NS)	Friday	0230Z	0300Z	<a href="#">Rules</a>

Note: Start Days are in UTC, e.g. Monday at 0000 UTC is  
 Sunday at 7:00 PM in the Central Daylight Saving Time zone, or  
 Sunday at 6:00 PM in the Central Standard Time zone.

## Full Calendar

Contest	Start		End		Web Site
CQ Worldwide VHF Contest	Jul 20	1800Z	Jul 21	2100Z	<a href="#">Rules</a>
North American QSO Party, RTTY	Jul 20	1800Z	Jul 21	0559Z	<a href="#">Rules</a>
RSGB IOTA Contest	Jul 27	1200Z	Jul 28	1200Z	<a href="#">Rules</a>
Alabama QSO Party	Jul 27	1500Z	Jul 28	0300Z	<a href="#">Rules</a>
10-10 Int. Summer Contest, SSB	Aug 3	0001Z	Aug 4	2359Z	<a href="#">Rules</a>
<b>North American QSO Party, CW</b>	Aug 3	1800Z	Aug 4	0600Z	<a href="#">Rules</a>
<b>WAE DX Contest, CW</b>	Aug 10	0000Z	Aug 11	2359Z	<a href="#">Rules</a>
Maryland-DC QSO Party	Aug 10	1400Z	Aug 11	0400Z	<a href="#">Rules</a>
<b>North American QSO Party, SSB</b>	Aug 17	1800Z	Aug 18	0600Z	<a href="#">Rules</a>
ARRL Rookie Roundup, RTTY	Aug 18	1800Z	Aug 18	2359Z	<a href="#">Rules</a>
Hawaii QSO Party	Aug 24	0400Z	Aug 26	0400Z	<a href="#">Rules</a>
World Wide Digi DX Contest	Aug 24	1200Z	Aug 25	1200Z	<a href="#">Rules</a>
YO DX HF Contest	Aug 24	1200Z	Aug 25	1200Z	<a href="#">Rules</a>
Kansas QSO Party	Aug 24	1400Z	Aug 25	2000Z	<a href="#">Rules</a>
Ohio QSO Party	Aug 24	1600Z	Aug 25	0400Z	<a href="#">Rules</a>
UK/EI DX Contest, SSB	Aug 31	1200Z	Sep 1	1200Z	<a href="#">Rules</a>
Tennessee QSO Party	Sep 1	1700Z	Sep 2	0300Z	<a href="#">Rules</a>
CWops CW Open	Sep 7	0000Z	Sep 7	2359Z	<a href="#">Rules</a>
North American Sprint, CW	Sep 8	0000Z	Sep 8	0400Z	<a href="#">Rules</a>
<b>WAE DX Contest, SSB</b>	Sep 14	0000Z	Sep 15	2359Z	<a href="#">Rules</a>
ARRL September VHF Contest	Sep 14	1800Z	Sep 16	0300Z	<a href="#">Rules</a>
North American Sprint, RTTY	Sep 15	0000Z	Sep 15	0400Z	<a href="#">Rules</a>
Scandinavian Activity Contest, CW	Sep 21	1200Z	Sep 22	1200Z	<a href="#">Rules</a>
<b>Iowa QSO Party</b>	Sep 21	1400Z	Sep 22	0200Z	<a href="#">Rules</a>
Texas QSO Party	Sep 21	1400Z	Sep 22	0200Z	<a href="#">Rules</a>
	Sep 22	1400Z	Sep 22	2000Z	
Wisconsin Parks on the Air	Sep 21	1600Z	Sep 21	2300Z	<a href="#">Rules</a>
New Jersey QSO Party	Sep 21	1600Z	Sep 22	0359Z	<a href="#">Rules</a>
New Hampshire QSO Party	Sep 21	1600Z	Sep 21	2200Z	<a href="#">Rules</a>
	Sep 22	1600Z	Sep 22	2200Z	
Washington State Salmon Run	Sep 21	1600Z	Sep 22	0700Z	<a href="#">Rules</a>
	Sep 22	1600Z	Sep 22	2400Z	
<b>CQ Worldwide DX Contest, RTTY</b>	Sep 28	0000Z	Sep 29	2400Z	<a href="#">Rules</a>
Maine QSO Party	Sep 28	1200Z	Sep 29	1200Z	<a href="#">Rules</a>
Oceania DX Contest, Phone	Oct 5	0600Z	Oct 6	0600Z	<a href="#">Rules</a>

California QSO Party	Oct 5	1600Z	Oct 6	2200Z	<a href="#">Rules</a>
Makrothen RTTY Contest	Oct 12	0000Z	Oct 13	1559Z	<a href="#">Rules</a>
Nevada QSO Party	Oct 12	0300Z	Oct 13	2100Z	<a href="#">Rules</a>
Oceania DX Contest, CW	Oct 12	0600Z	Oct 13	0600Z	<a href="#">Rules</a>
Scandinavian Activity Contest, SSB	Oct 12	1200Z	Oct 13	1200Z	<a href="#">Rules</a>
Arizona QSO Party	Oct 12	1500Z	Oct 13	0500Z	<a href="#">Rules</a>
Pennsylvania QSO Party	Oct 12	1600Z	Oct 13	0400Z	<a href="#">Rules</a>
	Oct 13	1300Z	Oct 13	2200Z	
South Dakota QSO Party	Oct 12	1800Z	Oct 13	1800Z	<a href="#">Rules</a>

-[Contest data courtesy of the [WA7BNM Contest Calendar](#) ]